Feed the Future Country Fact Sheet

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Parasitic Wasp Horde to be Deployed as Biological Weapon to Protect Cassava

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The dark insect pictured here is so tiny that it could be mistaken for a gnat. But it's actually a wasp that lays its eggs in the living bodies of other insects. When the eggs hatch, the wasp larvae eat their way out of their hosts, mummifying and killing them, before flying off in search of more living incubators for the next generation of wasps.

It sounds pretty gruesome, but this particular circle of life is actually great news for cassava farmers. That's because these wasps – a species called *Anagyrus lopezi* – are being tested as a biological weapon against the cassava pink mealybug (also pictured), a major pest in Southeast Asia capable of reducing cassava yields by up to 84 percent. Cassava is vitally important to Indonesia's 250 million residents – it is their second biggest food source after rice and supports incomes for smallholder farmers.

In September, an international team of scientists released 3,000 of these wasps into a cage on an Indonesian cassava field, the first step in a plan spearheaded by the **International Center for Tropical Agriculture** (CIAT) to combat this pest. The **Feed the Future Innovation Lab for Integrated Pest Management** (IPM), led by Virginia Tech University, is a key partner in the release operation, and has been active in Southeast Asia for the past decade. In 2010, IPM Innovation Lab researchers identified the cassava mealybug as a new and growing threat in the region and, after informing Indonesian officials and scientists about the risk, helped them connect with CIAT researchers, who had been using parasitic wasps as biological control agents in Thailand, Cambodia, Laos and Vietnam.

The collaborative project is now awaiting the field release permit, which will allow researchers to introduce the wasp to mealybug-infested areas all over the country. CIAT, the IPM Innovation Lab, and regional partners are also providing technical information on wasp production and release as well as monitoring and evaluation training.